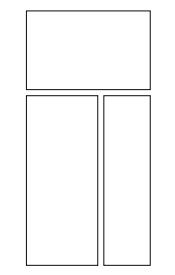
CODE ANALYSIS APPLICABLE CODES International Building Code National Electrical Code International Mechanical Code ____ Uniform Code for International Plumbing Code ___ Building Conservation ADA Accessibility International Fire Code International Energy Conservation Code A. Occupancy and Group: S-2 B A Change in Use: Yes ___X__ No _____ Mixed Occupancy: Yes __X__ No _____ Special Use and Occupancy (e.g. High Rise, Covered Mall): __N/A_____ B. Seismic Design Category: <u>EXIST.</u> Design Wind Speed: <u>90</u> mph C. Type of Construction (circle one): D. Fire Resistance Rating Requirements for the Exterior Walls based on the fire separation distance (in hours): North: 3 HR. South: 3 HR. East: 3 HR. West: 3 HR. (masonry walls) E. Mixed Occupancies: YES Nonseparated Uses: NO F: Sprinklers: NONE Required: _____ Provided: _____ Type of Sprinkler System: _____ H: Actual Area per Floor (square feet): B = 6,300 sf A-3 = 8182 sf S-2 = 3,600 sfI: Tabular Area: A-3 = 9,500 sf, B = 19,000 sf, S-2 = 26,000 sfJ: Area Modifications: 'B' PORTION: $A_0 = 19000 + 19000 \times .75$ = 19000 + 7125 = 33250 sf'A-3' PORTION: $A_0 = 9500 + 9500 \times .75$ = 9500 + 7125 = 16625 sf'S-2' PORTION: $A_0 = 26000 + 26000 \times .75$ = 26000 + 19500 = 45500b) Sum of the Ratio Calculations for Mixed Occupancies: 'A-3' PORTION: 8182 = 0.49'S-2' PORTION: 0.76 ≤ 1 c) Total Allowable Area for: 1) One Story: <u>18,060 sf</u> 2) Two Story: A_a (2)_____ 3) Three Story: $A_{q}(3)$ _____ d) Unlimited Area Building: Yes _____ No ____ Code Section: _____ K. Fire Resistance Rating Requirements for Building Elements (hours). Existing Exterior Bearing Walls Interior Bearing Walls Exterior Non-Bearing Walls Exterior Non-Bearing Walls Structural Frame Hours Listing Liement Hours Assembly Listing Floors - Ceiling Floors Roofs - Ceiling Roofs Exterior Doors and Windows NONE NONE NONE Existing Fire Wall Fire Partitions N/A N Smoke Partitions Fire Barriers L. Design Occupant Load: 523 Exit Width Required: ___104" Exit Width Provided: ___288" (8 3'-0" doors) M. Minimum Number of Required Plumbing Facilities: (Assumed Occupancy 75% men and 25% women) Water Closets - Required (m) $\underline{5}$ (f) $\underline{3}$ Provided (m) $\underline{5}$ (f) $\underline{3}$ Lavatories — Required (m) $\frac{3}{2}$ (f) $\frac{2}{2}$ Provided (m) $\frac{3}{2}$ (f) $\frac{2}{2}$ Bath Tubs or Showers: $\frac{1}{2}$ d) Drinking Fountains: ____1 Service Sinks: 1____ 1) In case of conflict with the U.S. Department of Justice Federal Registers IParts through ∇ — ADA Guidelines and specific reference to the International Building Code Accessibility Chapters, the more restrictive requirement shall govern. 2) Additional Code Information shall be provided at the discretion of the Building Official for Complex Buildings. Including, but not limited to: High Rise Requirements. Atriums. Performance Based Criteria. Means or Egress Analysis. Fire Assembly Locator Sheet. Exterior and Interior Accessibility Route. Fire Stopping, Including Tested Design Number.

ADDITIONS & REMODEL TO: UTAH NATIONAL GUARD FACILITY

TOOELE ARMORY BUILDING

300 EAST VINE STREET TOOELE, UTAH

DFCM PROJECT NO. 06193470



VINCENT DESIGN GROUP INC.

401 EAST 1700 SOUTH SALT LAKE CITY, UTAH (801) 484-2046

architects/planners

	LEGEND	& S	YMBOLS
ACOUST.	ACOUSTIC	SPEC.	SPECIFICATION
ADJ.	ADJUSTABLE	STL.	STEEL
ALUM.	ALUMINUM	TJI.	TRUSS JOIST
CER.TILE	CERAMIC TILE	REQ.	REQUIRED
CONC.	CONCRETE	W.C.	WATER CLOSET
CONT.	CONTINUOUS	U.N.O.	UNLESS NOTED OTHERWISE
DET.	DETAIL		
ELEV.	ELEVATION		
EXIST/EX.	EXISTING		
EXP.	EXPANSION		
FLR.	FLOOR	P/L	PROPERTY LINE
F.D.	FLOOR DRAIN	FGE.	FINISH GRADE ELEVATION
GALV.	GALVANIZED	TBC.	TOP OF CURB ELEVATION
GA.	GUAGE	TCE.	TOP OF CONCRETE ELEVATION
GYP. BD.	GYPSUM BOARD	FFE.	FINISH FLOOR ELEVATION
INSUL.	INSULATION	— G —	GAS LINE
MAX.	MAXIMUM	—ss—	SANITARY SEWER LINE
MM	MINIMUM	—w—	WATER LINE
MTL.	METAL	<u>—T—</u>	TELEPHONE LINE
N. I. C.	NOT IN CONTRACT	—P—	POWER LINE
OPN'G	OPENING		
REINF.	REINFORCED		
SHT.	SHEET		
O.C.	ON CENTER		

	WOOD FRAMED WALLS			WINDOW NUMBERS
4 4	CONCRETE			DOOR NUMBERS
	ACOUSTIC TILE	DETAIL NUMBER		
	GYPSUM BOARD BRICK VENEER	SHEET NUMBER		DETAIL
	RIGID INSULATION	SECTION LETTER	\triangle	SECTION OR
	WOOD DIMENSIONAL LUMBER	SHEET NUMBER		ELEVATION
	WOOD			

NUMBER	TITLE
AS-101	TITLE SHEET, INDEX & LEGEND
AS-102	
AE-101	DEMOLITION PLAN & NOTES
AE-102	PLOOR PLAN, SCHEDULES & DETAILS
AE-103	ELEVATIONS & DETAILS
AE-104	FLOOR FRAMING & SECTIONS
AE-105	REFLECTED CEILING PLAN, SECTIONS & DETAILS
M-100	MECHANICAL PLAN & DETAIL
M-101	MECHANICAL DETAILS, SPECIFICATION, SCHEDULES & NOTES
E-1.1	ELECTRICAL NOTES & SCHEDULES
E-2.1	ELECTRICAL LIGHTING PLAN
E-3.1	ELECTRICAL POWER PLAN

APPROVALS:	
Prime Agency	Date
DFCM	Date
APPROVAL DOES NOT RELIEVE A/E OF DESIGN LIABILITY	

VINCENT DESIGN GROUP, INC. ARCHITECTS AND PLANNERS

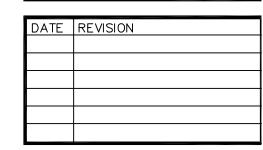
ARMORY

A

300 EAST VINE STREET TOOELE, UTAH

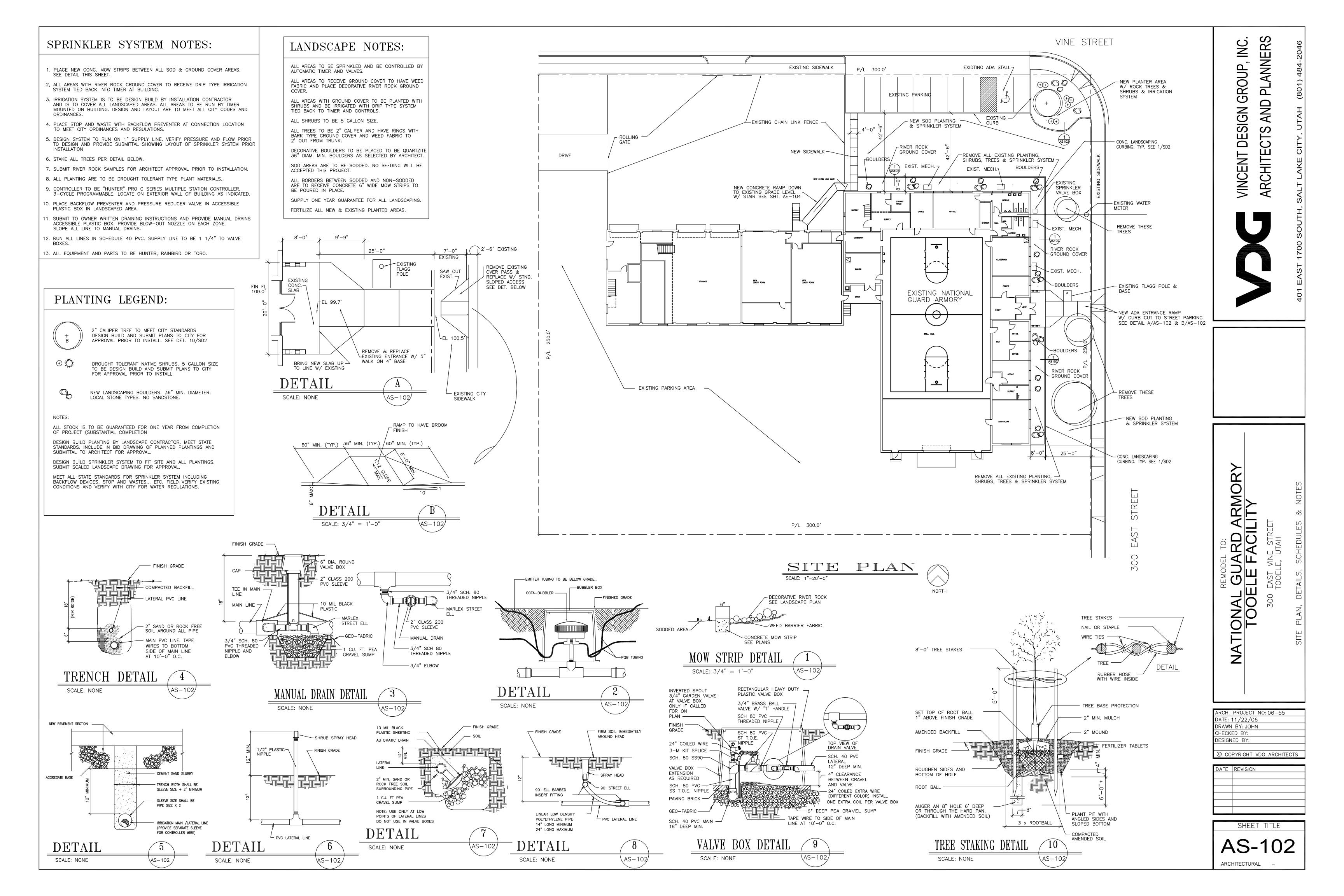
ARCH. PROJECT NO: 06-55
DATE: 12/5/06
DRAWN BY: JOHN
CHECKED BY:
DESIGNED BY:

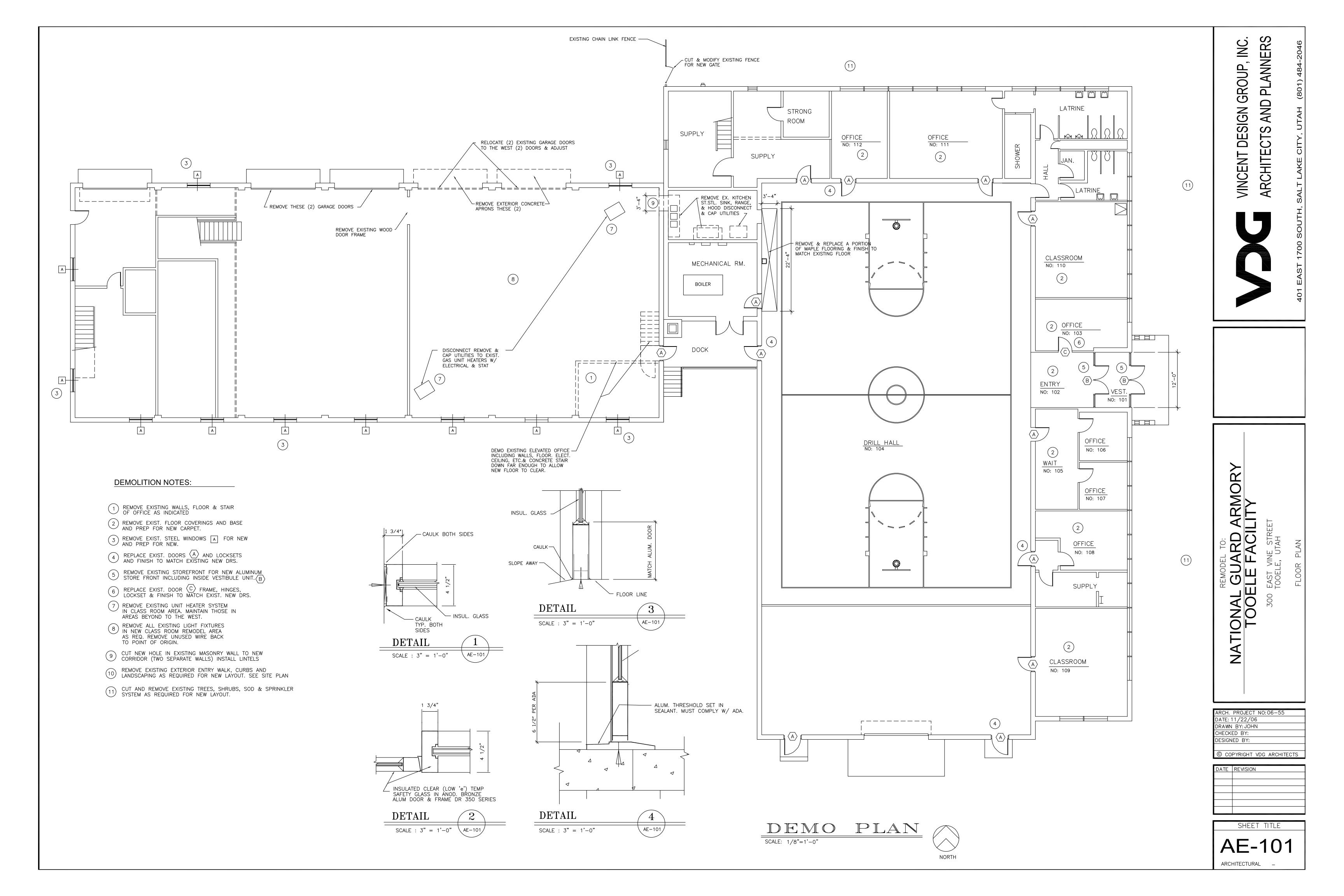
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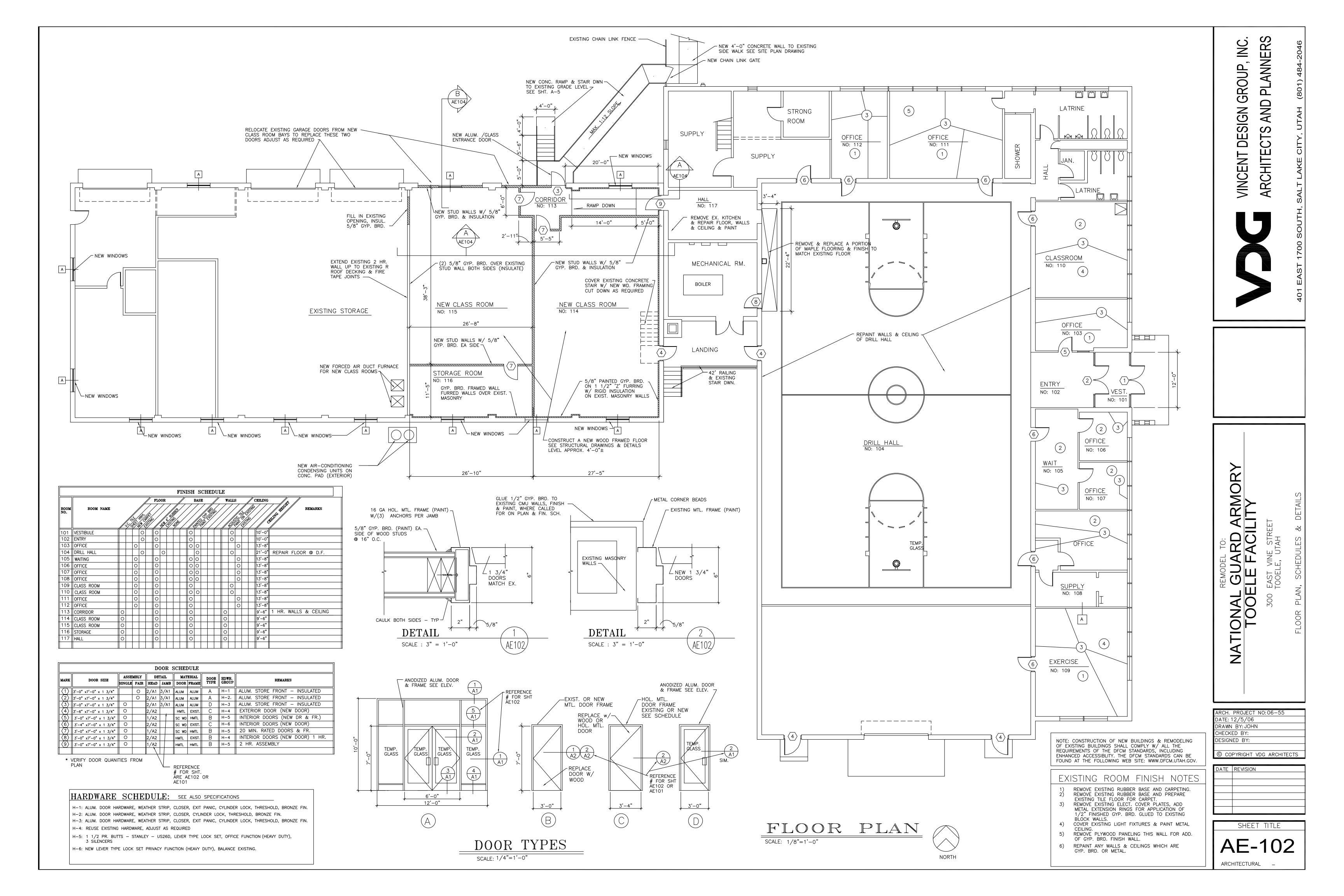


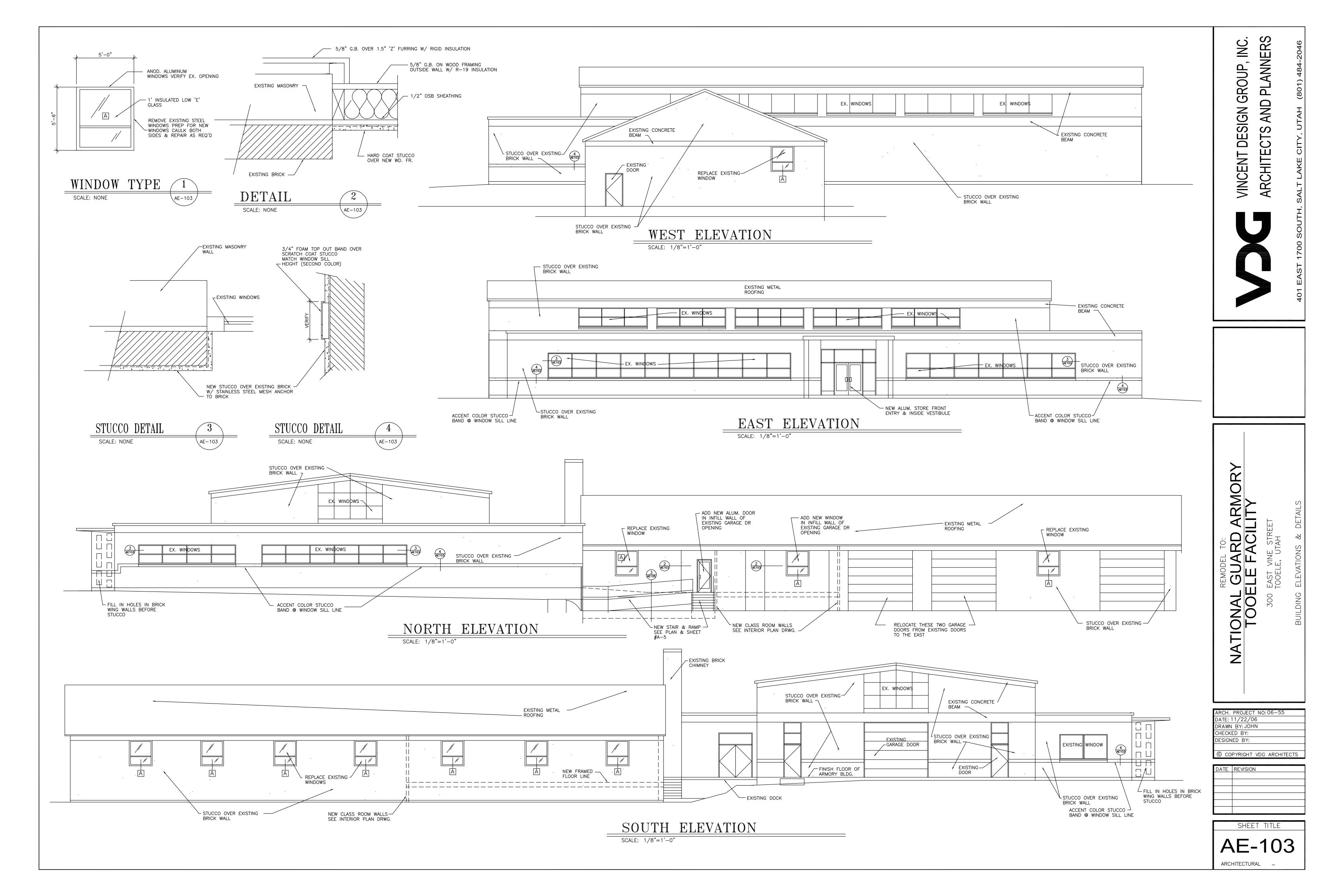
AS-101

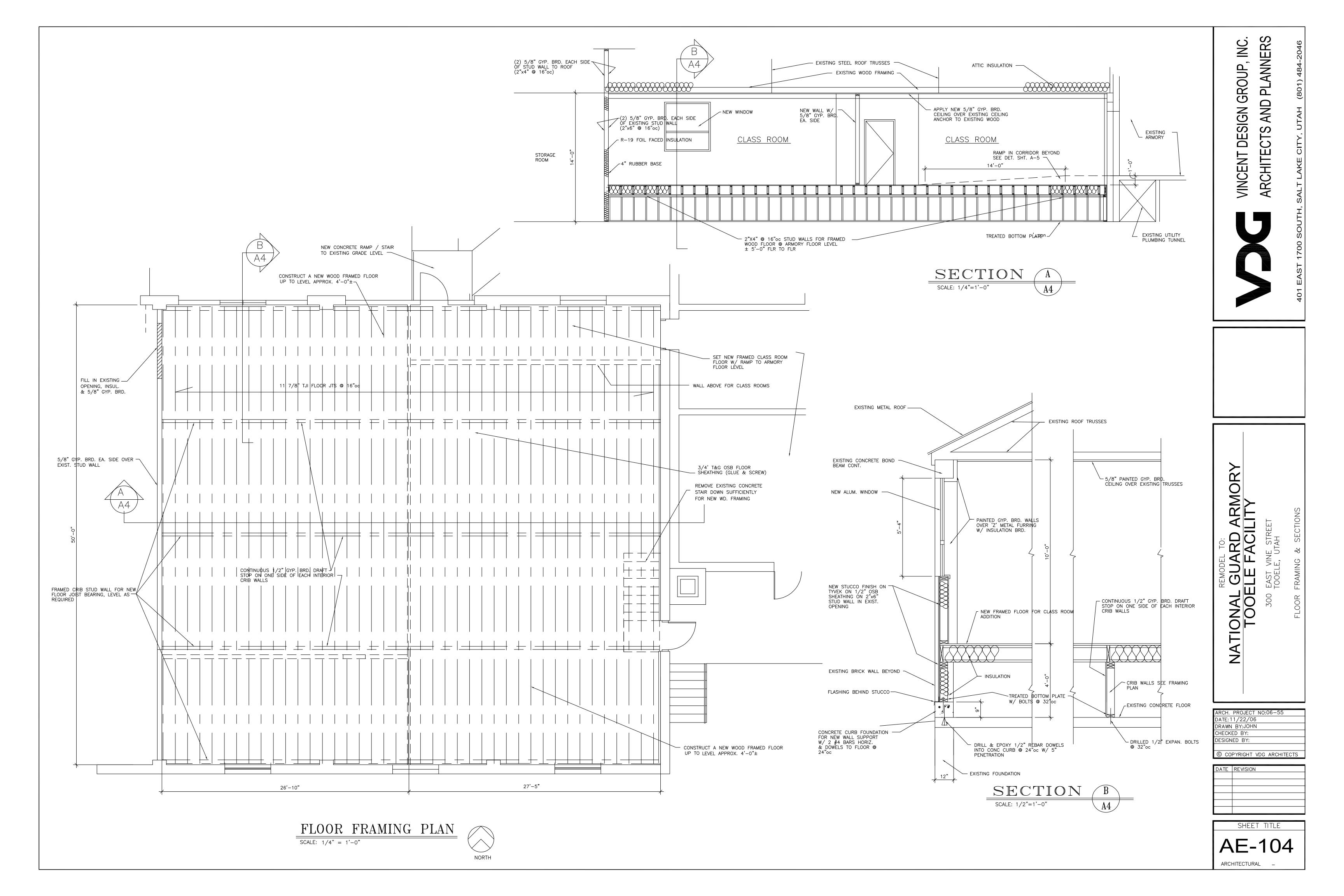
ARCHITECTURAL -

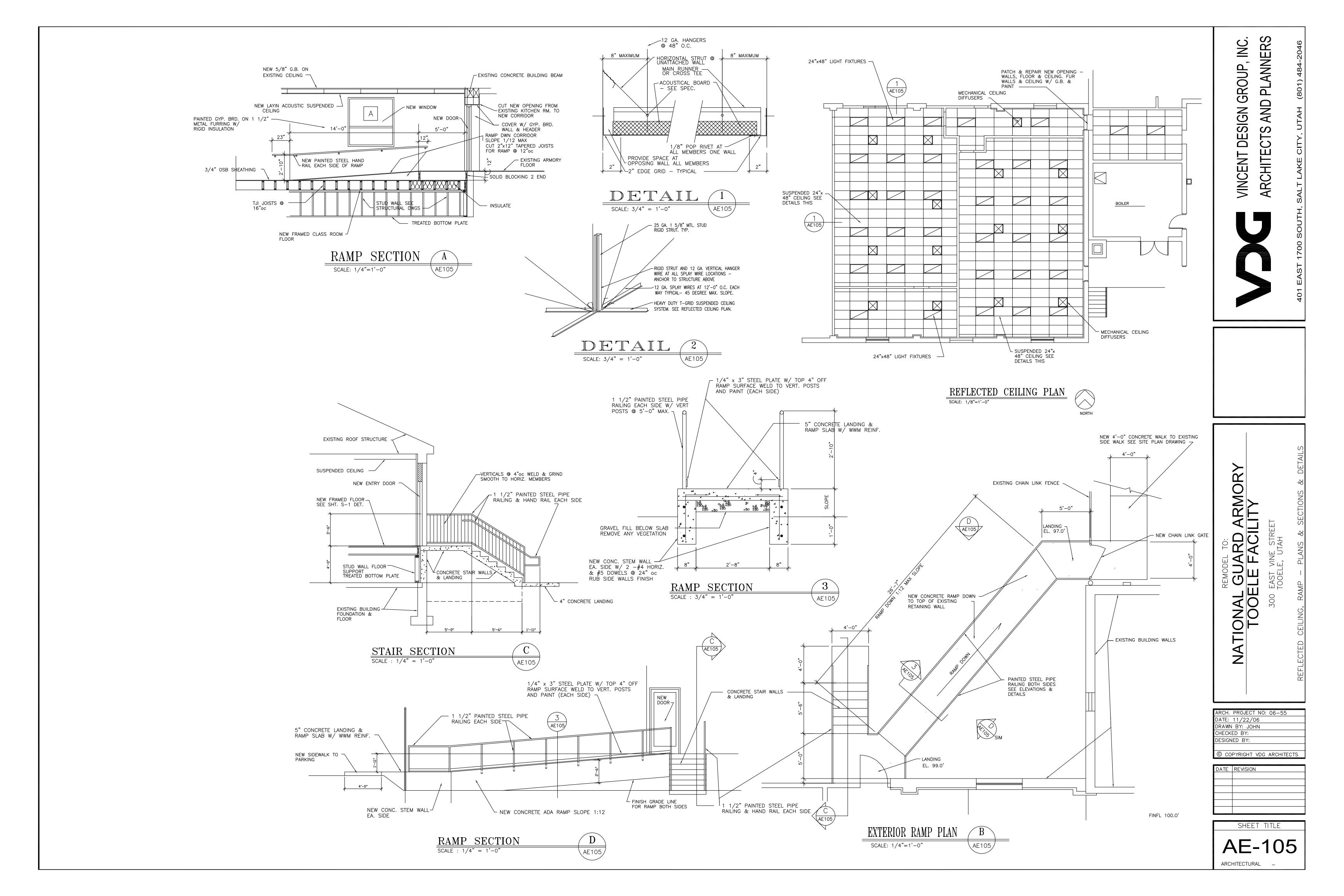


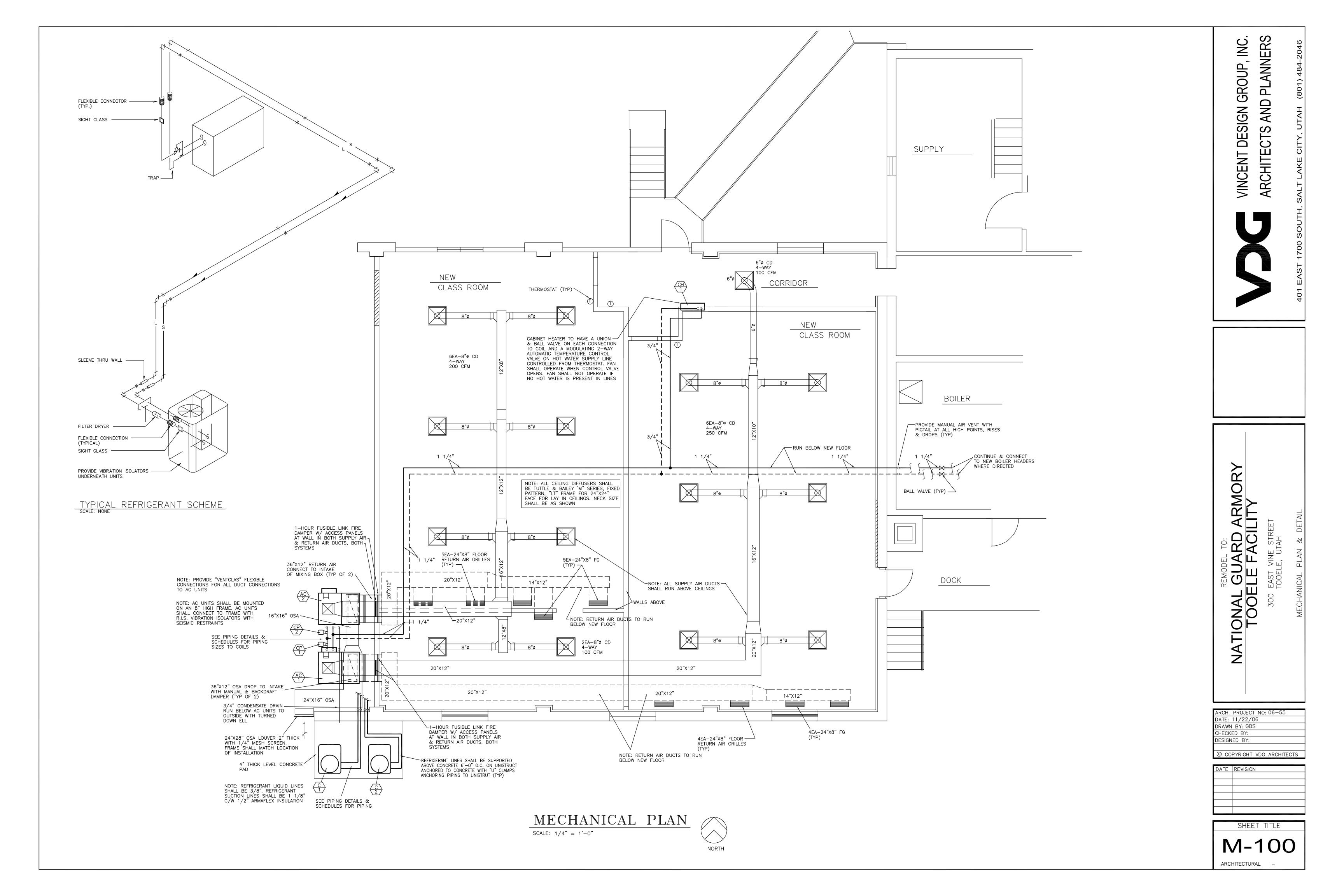












GENERAL

1. PROVISIONS OF "GENERAL NOTES", SHALL APPLY TO THIS WORK

2. INSTALL WORK IN STRICT ACCORDANCE WITH APPLICABLE RULES, REGULATIONS OF LOCAL AND STATE GOVERNMENTS AND OTHER AUTHORITIES HAVING LAWFUL JURISDICTION.

3. CONFORM WITH, COOPERATE WITH AND ASSIST OTHER CONTRACTORS IN CONFORMING WITH TRADE JURISDICTION RULINGS.

4. DRAWINGS AND SPECIFICATIONS INDICATE THE MINIMUM STANDARDS OF CONSTRUCTION, BUT SHOULD ANY WORK INDICATED BE SUBSTANDARD TO ANY ORDINANCES, LAWS, CODES, RULES, OR REGULATIONS BEARING ON THE WORK, CONTRACTOR SHALL EXECUTE WORK IN ACCORDANCE WITH SUCH ORDINANCES, LAWS, CODES, RULES OR REGULATIONS.

5. MECHANICAL CONTRACTOR SHALL SECURE AND PAY FOR ALL NECESSARY PERMITS, FEES, TAXES, INSPECTIONS AND CERTIFICATES THEREOF REQUIRED BY FEDERAL OR STATE ORDINANCES, LAWS, CODES, RULES OR REGULATIONS.

6. CONSULT WITH BUILDING OFFICIALS AND SERVICE COMPANIES TO VERIFY REQUIREMENTS AND COSTS FOR SERVICES AND THEIR INSTALLATIONS IN ACCORDANCE WITH SPECIFICATIONS, APPLICABLE CODES AND REQUIREMENTS.

7. LOCATIONS OF EQUIPMENT, PIPING AND OTHER MECHANICAL WORK IS INDICATED DIAGRAMMATICALLY BY DRAWINGS. DETERMINE EXACT LOCATIONS ON JOB, SUBJECT TO STRUCTURAL CONDITIONS AND WORK OF OTHER CONTRACTORS.

8. MAKE NO MAJOR CHANGES NOR DECREASE SIZE OF ANY DUCTWORK, PIPING OR EQUIPMENT WITHOUT WRITTEN PERMISSION.

9. CUTTING OF STRUCTURAL MEMBERS IS NOT ALLOWED.

10. ALL EQUIPMENT SHALL BE NEW, OF THE BEST QUALITY NORMALLY USED FOR THE PURPOSE IN GOOD COMMERCIAL PRACTICE AND BE PRODUCTS OF REPUTABLE MANUFACTURERS AS NOTED ON THE PLANS.

11. THE MECHANICAL CONTRACTOR SHALL GUARANTEE THAT ALL EQUIPMENT, MATERIAL AND WORKMANSHIP FURNISHED BY HIM IS FREE OF DEFECT. SHOULD DEFECTS APPEAR WITHIN ONE YEAR FROM DATE OF INSTALLATION ACCEPTANCE, SAME SHALL BE REPLACED AT NO CHARGE TO THE OWNER FOR PARTS, EQUIPMENT OR LABOR. HVAC UNIT(S) SHALL HAVE WARRANTIES OF FIVE YEARS FOR THE COMPRESSOR AND TEN YEARS FOR THE HEAT EXCHANGER. WARRANTY WORK ON ITEMS SUPPLIED BY THE OWNER WILL BE DONE ON A TIME AND MATERIAL BASIS, UNLESS DUE TO IMPROPER INSTALLATION, OR AS PER INSTRUCTIONS FROM OWNER.

HEATING, VENTILATING AND COOLING

DUCT WORK

1. DUCT SIZE, SHAPE AND LOCATION SHALL BE IN ACCORDANCE WITH PLANS AS CLOSELY AS POSSIBLE

2. CONSTRUCTION AND MATERIALS SHALL BE PER STATE, LOCAL AND ALL APPLICABLE MECHANICAL CODES, AND ASHRAE REQUIREMENTS

3. DUCTWORK CONSTRUCTED TO FORM SMOOTH SURFACE INSIDE AND NEAT APPEARANCE OUTSIDE

4. JOINT SPACING 8'-0" O.C. MAXIMUM

5. RECTANGULAR DUCTWORK TO BE GALVANIZED SHEET METAL. 26 GA. UP TO 22" WIDE. 24 GA. — 23" TO 30" WIDE. 22 GA. — 31" TO 42" WIDE. CROSS BRAKE DUCTS OVER 18" WIDE. DUCTS SHALL BE IN ACCORDANCE WITH UMC AND SMACNA "LOW VELOCITY DUCT MANUAL" LATEST EDITION. PROVIDE TURNING VANES IN ALL SQUARE ELBOWS.

6. ROUND DUCTS TO BE GALVANIZED STEEL PIPE. 26 GA. UP TO 12" DIA.

7. FLEXIBLE DUCT TO BE FLEXMASTER TYPE 5 INSULATED TRI-LAMINATED, OR EQUAL, FIRE RETARDENT OUTER JACKET WITH VAPOR BARRIER, U.L. LISTED

8. FLEXIBLE DUCT ACCEPTABLE ONLY FOR 2 FEET MAX. FINAL CONNECTION TO DIFFUSERS.

9. INSULATE METAL RECTANGULAR DUCTS INTERNALLY OR EXTERNALLY. WRAP AND TAPE WITH 1# TO 1.5# DENSITY, 1.5" THICK R-6 MIN. INSULATION WITH FOIL BACKING TO PROVIDE VAPOR BARRIER.

10. INSULATE ROUND DUCTS WITH EXTERNAL WRAP AND TAPE WITH 1# TO 1.5# DENSITY, 1.5" THICK R-6 MIN. INSULATION WITH FOIL BACKING TO PROVIDE VAPOR BARRIER.

11. SUPPORT DUCTS AT 8' MAX. INTERVALS. DUCTS TO 30" WIDE: 1"x16 GA. MIN. STRAP HANGERS DOWN SIDE OF DUCT AND TURN UNDER 2" MIN. ATTACHED WITH SHEET METAL SCREWS.

GRILLES, REGISTERS AND LOUVERS

FURNISH GRILLES, REGISTERS AND LOUVERS AS SCHEDULED ON PLANS.
 ACCEPTABLE MANUFACTURERS: TITUS, TUTTLE & BAILEY, KRUEGER, OR CARNES

2. ACCEPTABLE MANOFACTURERS. 11103, TOTTLE & BAILET, RROEGER, OR CA

EXHAUST AIR SYSTEM(S)

1. REFER TO HVAC EQUIPMENT LIST FOR SPECIFICATIONS OF EQUIPMENT AND PARTY RESPONSIBLE FOR FURNISHING THE EQUIPMENT.

2. INSTALL FANS AS INDICATED ON PLANS AND SCHEDULED, COMPLETE WITH ALL NECESSARY ACCESSORIES, BIRD SCREENS AND BACKDRAFT DAMPERS, REGISTERS, DIFFUSERS, ETC. EXHAUST AND MAKE—UP AIR FAN CURBS BY G.C.

ELECTRICAL

1. PROVIDE STARTERS, SWITCHES, RELAYS, CONTROLS, THERMOSTATS AND REMOTE SENSORS AS REQUIRED BY CODE AND/OR THE DRAWINGS FOR INSTALLATION BY E.C.
2. DUCT SMOKE DETECTOR SYSTEM FURNISHED AND INSTALLED BY MECHANICAL AS

TEST AND BALANCE

CONDENSATE DRAIN SYSTEMS.

SHOWN. MC TO PROVIDE DUCT ACCESS PANEL.

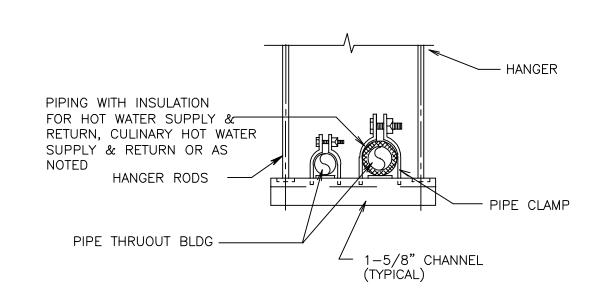
1. TEST THE BALANCE OF AIR FOR ALL COMPONENTS AS LISTED ON THE AIR BALANCE

SCHEDULE IN THE PLANS N.E.B.B. OR A.A.B.C. LATEST STANDARDS.

2. EMPLOY AN EXPERIENCED TESTING FIRM OTHER THAN THE HVAC SUBCONTRACTOR.

3. TESTING SHALL INCLUDE VERIFICATION OF FLOW AND PROPER FUNCTIONING OF

4. REPORT SHALL LIST RESULTS OF AIR VOLUMES, SUPPLY, EXHAUST AND OUTSIDE AIR AND BE CERTIFIED AND SIGNED BY TESTING COMPANY.5. PROVIDE 3 COPIES OF REPORT TO ARCHITECT PRIOR TO FINAL BILLING.



PIPE SUPPORT

SCALE: NONE

	HOTWATER CABINET HEATER SCHEDULE												
SYM	MANUFACTURER	AREA SERVED	MBH AT 180°F ENT.	GPM	DELTA T	MOTOR HP	ELE(ELECTRICAL VOLT AMPS		REMARKS			
CH 1	TRANE FFHB0601KMOCO	ENTRY LOBBY	28.7	2.87	20 °	1/8	120	1.2	120	1234			

- 1) PROVIDE UNIONS AT HOT WATER COIL CONNECTIONS
- 2 PROVIDE BALL VALVES AT COIL CONNECTIONS
- (3) PROVIDE AUTO. 2-WAY HOT WATER VALVE ON ENT. WATER PIPE
- PROVIDE FRONT BAR GRILLE, DELUX BEIGE COLOR, KEYLOCK PANEL & ACCESS DOOR 2 ROW HOT WATER COIL MANUAL AIR VENT, DISCONNECT SWITCH, 1" FILTER, DECORATIVE TRIM MOLD AROUND CABINET & MATCHING WALL THERMOSTAT

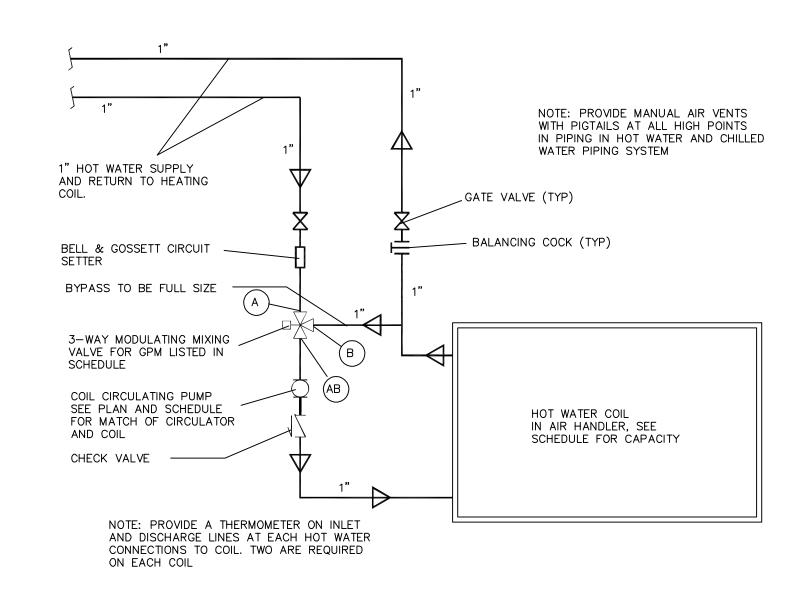
		CONDENSING	UN	ΙT	SCHED	ULI	Ξ					
COND.	MANUFACTURER	ADEA CEDVED	СЕМ	CD.	COOLING 2	SEED.	COND. UNIT ELECT		ELECT.	NOMINAL	REMARKS	
SYM	MODEL	AREA SERVED	CFM	CFM SP	ARI NET CLG CAP.	SEER	VOLT	Ph	Hz	TONS	KEMARKS	
$\begin{pmatrix} C \\ 1 \end{pmatrix}$	TRANE TTA048D300A	CLASSROOM	1600	1.4"	48,000	10.0	208	3	60	4.0	5678	
$\left\langle \begin{array}{c} C \\ 2 \end{array} \right\rangle$	TRANE TTA048D300A	CLASSROOM	1600	1.4"	48,000	10.0	208	3	60	4.0	5678	

GENERAL NOTES (APPLIES TO ALL UNITS)

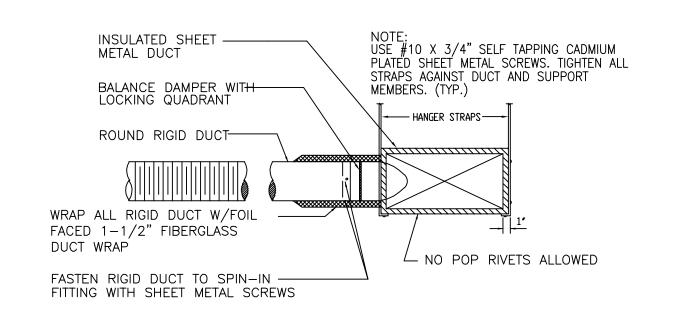
- 1. EXTERNAL STATIC PRESSURE WITH FILTER IN PLACE.
- 2. COOLING CAPACITY BASED ON; 80°DB/62°WB ENT. AIR & 95° AMBIENT.
- 3. CONTINUOUS B.H.P. PER MANUFACTURERS SPECIFICATIONS.

NUMBERED NOTES (APPLIES TO UNITS LISTED)

- (5) PROVIDE MANUAL BALANCING DAMPER IN OUTSIDE AIR DUCT AT AIR HANDLER
- 6 PROVIDE FILTER RACK & 2" THROWAWAY FILTERS.
- 7) SEE CONTROL SEQUENCE
- (8) PROVIDE VENTGLASS FLEXIBLE CONNECTIONS AT DUCT CONNECTIONS TO AIR HANDLER



HOT WATER COIL PIPING DIAGRAM (TYP)



FLEX DUCT WITH SPIN IN FITTING

NO SCALE

GE	NERAL MECHANICAL SCHEDULE
SYMBOL	DESCRIPTION/MANUFACTURER-MODEL
AC 1	AIR HANDLING UNIT, VERTICAL, HOT WATER HEATING, DX COOLING, 1,600 CFM AT 2.0 T.S.P., 1.0 HP, 208/3/60, 1750 RPM MOTOR, 2 ROW HOT WATER COIL WITH A CAPACITY OF 75,000 BTUH WITH ENT. WATER AT 180°F, LV WATER AT 160°F AND 60° ENT. AIR, 4 ROW DX COOLING COIL WITH ENT. AIR AT 80°F DB AND 61°F WB, 3.5 SQ. FT COIL FACE AREA HTG & CLG, COMBINATION FILTER AND MIXING BOX WITH AUTOMATIC OUTSIDE AIR AND RETURN AIR DAMPERS, INSULATED CASING WITH 1" OF FACTORY APPLIED INSULATION, 13.3 SQ. FT. FILTER AREA WITH 2" THICK DISPOSABLE

FILTERS, MOUNT AIR HANDLER ON AN 8" HIGH BASE WITH RUBBER IN SHEAR VIBRATION ISOLATORS WITH SEISMIC RESTAINTS.

	PUMP SCHEDULE												
SYMBOL	DESCRIPTION (MED	SERVICE	CAPACITY		MOTOR								
SIMBUL	DESCRIPTION/MFR.	SERVICE	GPM	HEAD FT WATER	HP	RPM	VOLT	0	N□TES				
CP 1	BELL & GOSSETT 1" PR	COIL HEATING HOT WATER	6.0	15	1/6	1750	120	1	12				
CP 2	BELL & GOSSETT 1" PR	COIL HEATING HOT WATER	6.0	15	1/6	1750	120	1	1 2				

NUMBERED NOTES (APPLIES TO UNITS LISTED)

MC QUAY LSL 104C

- 1 BRONZE FITTED
- BASE MOUNTED, CLOSE COUPLED, FLOOR MOUNTED WITH 4" HIGH CONCRETE HOUSEKEEPING PAD, BOLT PUMP TO BASE

E	EQUIPMENT CONNECTION SIZE SCHEDULE												
FURN. SYM	COND. SYM	AREA SERVED	REF. LINE SIZE LIQUID SUCTION		INTAKE/VENT SIZE INTAKE VENT/FLUE		COND. DRAIN	GAS SIZE	REMARKS				
AH 1	(L)	CLASSROOM	3/8"	1 1/8"	_	-	3/4"	-	123				
AH 2	$\begin{pmatrix} C \\ 2 \end{pmatrix}$	CLASSROOM	3/8"	1 1/8"	-	_	3/4"	_	123				

NOTES

- (1) REFRIGERANT PIPING SHALL BE DEGREASED & DEOXIDIZED TYPE "L" COPPER WITH WROUGHT COPPER
- FITTINGS. SOLDER SHALL BE "SILFOS" SILVER SOLDER
- 2 ALL REFRIGERANT SUCTION LINES SHALL BE INSULATED WITH 1/2" ARMSTRONG ARMAFLEX WITH TWO COATS OF ARAMAFLEX 22 FINISH
- 3 DRAIN PIPING SHALL BE TYPE "L" COPPER WITH WROUGHT COPPER FITTINGS. SOLDER SHALL BE 95/5

<u>AUTOMATIC TEMPERATURE CONTROL</u>

THE MECHANICAL CONTRACTOR SHALL PROVIDE A COMPLETE SYSTEM OF AUTOMATIC TEMPERATURE CONTROL FOR ALL EQUIPMENT FURNISHED BY THE MECHANICAL CONTRACTOR. THIS SHALL INCLUDE ALL THERMOSTATS, CONTROLLERS, AUTOMATIC VALVES, SENSORS, CONTACTS, ETC. FOR A COMPLETE SYSTEM. ALL WIRING ASSOCIATED WITH THE TEMPERATURE CONTROL SYSTEM SHALL BE BY THE MECHANICAL CONTRACTOR. ALL WIRING FOR THE CONTROL SYSTTEM SHALL BE RUN IN CONDUIT.

A WALL MOUNTED THERMOSTAT FURNISHED WITH HVAC UNIT SHALL CONTROL SPACE TEMPERATURE.

HVAC UNITS SHALL BE CONTROLLED WITH A WALL MOUNTED THERMOSTAT TO CONTROL SPACE TEMPERATURE. THE THERMOSTAT SHALL MODULATE HOT WATER VALVES & CONDENSING UNITS IN SEQUENCE TO MAINTAIN SPACE TEMPERATURE. AUTOMATIC VALVES SHALL BE MATCHED TO THE HVAC UNIT AND SHALL BE FURNISHED BY CONTROL CONTRACTOR.

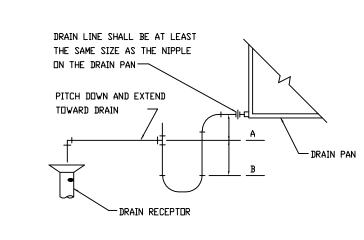
CABINET HEATER SHALL BE CONTROLLED WITH A WALL MOUNTED THERMOSTAT TO CONTROL SPACE TEMPERATURE. THE THERMOSTAT SHALL MODULATE HOT WATER VALVE TO MAINTAIN TO MAINTAIN SPACE TEMPERATURE. VALVES SHALL BE FURNISHED BY CONTROL CONTRACTOR.

FOR AIR HANDLING UNITS AC-1 AND AC-2 A WALL MOUNTED THERMOSTAT SHALL CONTROL SPACE TEMPERATURE BY MODULATING A 3-WAY HOT WATER VALVE AND CONDENSING UNIT IN SEQUENCE TO MAINTAIN SPACE TEMPERATURE. HOT WATER CIRCULATING PUMP SHALL RUN WHENEVER THE HOT WATER VALVE OPENS TO THE HOT PORT. THE FANS SHALL BE CONTROLLED FROM A 7-DAY PROGRAMMABLE THERMOSTAT.

AN AVERAGING ELEMENT IN THE MIXED AIR SECTION OF AC-1 AND AC-2 SHALL MODULATE THE OUTSIDE AND RETURN AIR DAMPERS TO MAINTAIN PLENUM TEMPERATURE. A LOW LIMIT AIR QUANTITY SHALL BE GUARANTEED WITH STOPS. MOTORIZED DAMPERS FOR HVAC UNITS SHALL BE FURNISHED WITH MIXING BOX.

A SMOKE DETECTOR AND FREEZESTAT SHALL BE PROVIDED ON AC-1 AND AC-2 TO STOP THE FAN AND CLOSE THE OUTSIDE DAMPER IF A FIRE OR FREEZING CONDITIONS ARE SENSED

CONTROLS FOR THIS ADDITON SHALL BE "UTAH CONTROLS" AND SHALL MATCH AND BE INTEGRATED WITH THE NEW CONTROL SYSTEM FOR THE NEW BOILER.



DX COIL DRAIN TRAP
NO SCALE

MECHANICAL NOTES

- 1. WIRING FOR THERMOSTATS AND INTERCONNECTING EQUIPMENT WIRING FOR CONTROLS SHALL BE BY HVAC CONTRACTOR
- ALL ROUND DUCTWORK SHALL BE GALVANIZED SPIRAL WOUND SHEET METAL. ALL IN ACCORDANCE WITH SMACNA "HIGH VELOCITY DUCT MANUAL" LATEST EDITION
- ALL RECTANGULAR DUCTWORK SHALL BE GALVANIZED SHEET METAL ALL IN ACCORDANCE WITH SMACNA "LOW VELOCITY DUCT MANUAL" LATEST EDITION
- 4. COORDINATE ALL DUCTWORK WITH STRUCTURE, ELECTRICAL, ETC. RUN DUCTS BETWEEN TRUSSES, THRU WEBS, ETC.
- 5. BALANCE AND ADJUST THE COMPLETE MECHANICAL SYSTEM. PROVIDE A BALANCING REPORT OF THE RESULTS OF BALANCING.
- DUCTWORK PASSING THRU ROOF JOISTS SHALL HAVE SHEET METAL PANNED AROUND JOISTS. JOISTS SHALL PASS THRU DUCT. SEAL AROUND ALL JOISTS TO MAKE AN AIR TIGHT DUCT.
- 7. LINE INSIDE OF SUPPLY, RETURN & OUTSIDE AIR DUCTS FROM AC UNITS FOR 10'-0" FROM UNIT WITH 1" OF ACCOUSTIC FIBERGLASS INSULATION. INCREASE DUCT SIZES 2" ON EACH SIDE TO ACCOMODATE INSULATION.
- 8. ALL SUPPLY AIR DUCTS SHALL BE WRAPPED WITH 1" OF FIBERGLASS DUCT INSULATION WITH ALL PURPOSE VAPOR BARRIER LAPPED AND SEALED. SUPPLY DUCTS WHICH ARE VISIBLE SHALL NOT BE INSULATED.
- 9. ALL THERMOSTATS SHALL BE MOUNTED AT 5'-6" OR AS NOTED ON DRAWINGS
- SPACE REQUIREMENTS ABOVE OR AROUND ELECTRICAL EQUIPMENT

 11. CEILING DIFFUSERS, IN GENERAL, SHALL BE FOR LAY—IN

10. NO PIPING OR DUCTWORK SHALL CONFLICT WITH ELECTRICAL

WITH OTHER THAN LAY-IN TILE. FRAME OF DIFFUSER SHALL MATCH CEILING WHERE INSTALLED.

12. FLOOR RETURN AIR GRILLES SHALL BE TUTTLE & BAILEY TB SERIES

T-BAR CEILINGS. SEE ARCHITECTURAL DRAWINGS FOR CEILINGS

- FLOOR RETURN AIR GRILLES SHALL BE TUTTLE & BAILEY TB SERIES FOR FLOOR INSTALLATION WITH HEAVY DUTY ALUMINUM BARS. PROVIDE A SHEET METAL BOOT THE SAME SIZE AS THE REGISTER FROM THE GRILLE TO THE RETURN AIR DUCT.
- 13. RETURN AIR REGISTERS SHALL BE COMPLETE WITH A KEY OPERATED OPPOSED BLADE DAMPER
- 14. ALL BRANCH DUCTS TO INDIVIDUAL DIFFUSERS SHALL HAVE AN OPPOSED BLADE DAMPER FOR RECTANGULAR DUCTS AND A BUTTERFLY DAMPER FOR ROUND DUCTS.
- 15. ALL CEILING DIFFUSER AND GRILLE LOCATIONS SHALL BE COORDINATED WITH CEILING GRID AND LIGHTING. ADJUST THE LOCATIONS AS NECESSARY TO MATCH
- 16. ALL DRAIN PIPING SHALL BE COPPER, TYPE "L" WITH WROUGHT COPPER FITTINGS. SOLDER SHALL BE 95/5.
- 17. PIPE HANGER SPACING SHALL BE IN ACCORDANCE WITH THE UMC.
- 18. ALL HOT ATER HEATING PIPING INCLUDING AIR SEPARATOR AND EXPANSION LINES SHALL BE COVERED WITH 1" OF FIBERGLASS PIPE INSULATION INCLUDING VALVES AND FITTINGS, OTHER THAN UNIONS. TEES, ELBOWS ETC. SHALL BE FURTHER COVERED WITH MOLDED PASTIC COVERS DESIGNED FOR THIS APPLICATION.

VINCENT DESIGN GROUP, INC.ARCHITECTS AND PLANNERS

AMORY -

ELE FACILITY

EAST VINE STREET

NATIONAL G
TOOELI

ARCH. PROJECT NO: 06-55

DATE: 11/22/06

DRAWN BY: GDS

CHECKED BY:

DESIGNED BY:

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DATE REVISION

SHEET TITLE

M-101

ARCHITECTURAL

GENERAL NOTES

- 1. DO NOT SCALE DRAWINGS. VERIFY DIMENSIONS IN FIELD PRIOR TO MAKING ANY ROUGH-INS.
- 2. FINAL CONNECTIONS TO EQUIPMENT SHALL BE MADE AS PER MANUFACTURERS WRITTEN INSTRUCTIONS AND APPROVED WIRING DIAGRAMS AND DETAILS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO PROVIDE ALL MATERIALS AND EQUIPMENT COMPATIBLE WITH EQUIPMENT ACTUALLY SUPPLIED.
- CONSULT ARCHITECTS REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF LIGHTING FIXTURES, SPEAKERS, SMOKE DETECTORS ETC.
- 4. ELECTRICAL CONTRACTOR SHALL MEET WITH THE CEILING AND MECHANICAL CONTRACTORS TO COORDINATE LOCATIONS, CLEARANCES, CEILING TYPES AND ROUGH-IN REQUIREMENTS OF ALL LIGHTING FIXTURES PRIOR TO DUCT, PIPING AND CEILING INSTALLATIONS.
- ALL EMPTY RACEWAY SYSTEMS SHALL HAVE A 200LB RATED PULL CORD INSTALLED AND SHALL BE IDENTIFIED AT EACH JUNCTION, PULL AND TERMINATION POINT, USING PERMANENT MARKER IN THE BOX. ID SHALL INDICATE INTENDED USE OF CONDUIT, ORIGINATION AND TERMINATION POINTS OF EACH INDIVIDUAL CONDUIT.
- ALL PENETRATIONS OF FIRE RATED FLOORS, CEILING AND WALLS SHALL BE SEALED WITH APPROVED AND RATED FIRE STOP MATERIAL TO MAINTAIN FIRE RATING OF ASSEMBLY.
- ELECTRICAL BOXES SHALL NOT BE LOCATED IN MASONRY OR CONCRETE COLUMNS, BOND BEAMS OR GROUTED CELLS OF MASONRY WALLS ADJACENT TO OPENINGS WITHOUT COORDINATION WITH THE MASONRY CONTRACTOR.
- 8. IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS TO ESTABLISH A A STANDARD OF QUALITY. THE ENGINEER RESERVES THE RIGHT TO VERBALLY APPROVE METHODS AND MATERIALS NOT REFLECTED HEREIN.
- 9. CONTRACTOR SHALL REVIEW ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING AND OTHER DRAWINGS PRIOR TO BID.
- 10. WORK SHALL BE PERFORMED IN A PROFESSIONAL WORKMANLIKE MANNER TO THE SATISFACTION OF THE ARCHITECT AND ENGINEER.
- 11. WORK, MATERIALS AND EQUIPMENT SHALL CONFORM TO THE LATEST EDITIONS OF LOCAL, STATE AND NATIONAL CODES, STANDARDS AND ORDINANCES.
- 12. CONTRACTOR SHALL SECURE AND PAY FOR ALL NECESSARY BUILDING PERMITS AND
- 13. THE CONTRACTOR SHALL GUARANTEE THE INSTALLATION AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP, WHICH MAY OCCUR UNDER NORMAL USAGE FOR A PERIOD OF ONE YEAR AFTER SUBSTANTIAL COMPLETION. DEFECTS SHALL BE
- 14. PROVIDE RECORD DRAWINGS IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
- 15. VERIFY EXACT LOCATION OF EQUIPMENT TO BE FURNISHED BY OTHERS PRIOR TO ROUGH-IN.

PROMPTLY CORRECTED.

- 16. ELECTRICAL CONTRACTOR SHALL VERIFY ALL EQUIPMENT DIMENSIONS AND LOCATIONS BEFORE BEGINNING ROUGH-INS. CONSULT CONTRACT DOCUMENT DRAWINGS AND SHOP DRAWINGS TO VERIFY ALL CODE AND MAINTENANCE REQUIRED CLEARANCES ARE MAINTAINED.
- 17. CONTRACTOR SHALL VERIFY ACTUAL ELECTRICAL LOADS OF EACH PIECE OF EQUIPMENT REQUIRING POWER. BRING ANY DISCREPANCIES TO THE ATTENTION OF
- 18. SYSTEMS SHALL BE TESTED FOR PROPER OPERATION. IF TESTS RESULT IN DEFECT OR IMPROPER OPERATION THE CONTRACTOR SHALL MAKE ANY CORRECTIONS NECESSARY AT NO ADDITIONAL COSTS TO THE OWNER.
- 19. WIRE SHALL BE COPPER 75°C RATED FOR GENERAL USE. FOR HID FIXTURES AND WIRING WITHIN 3" OF FLUORESCENT BALLAST SHALL BE COPPER, MINIMUM 90°C RATED. CONDUCTOR SIZES INDICATED ARE FOR INSTALLATION IN A MAXIMUM 30°C AMBIENT TEMPERATURE ENVIRONMENT. CONDUCTOR AMPACITY SHALL BE DERATED FOR HIGHER AMBIENT INSTALLATIONS.
- 20. SPLICES IN EXTERIOR PULLBOXES AND MANHOLES SHALL BE MADE WATERPROOF USING "SCOTCAST" SPLICE KIT OR APPROVED EQUAL. SEAL ENDS OF CONDUITS AND DUCTS ENTERING BOXES WITH "DUCTSEAL" OR EQUAL.
- 21. SUBMIT SHOP DRAWINGS IN ACCORDANCE WITH SPECIFICATIONS BOUND IN A THREE RING BINDER, INDEXED IN A NEAT AND ORDERLY MANNER WITH TYPE AND MODEL NUMBERS INDICATED. SUBMITTALS SHALL INCLUDE BUT NOT LIMITED TO: LIGHTING FIXTURES, LAMPS, WIRING DEVICES, OCCUPANCY SENSORS, CONTACTORS, TIME CLOCKS, PHOTOCELLS, RELAYS, SWITCHBOARDS, PANELBOARDS, MOTOR CONTROL CENTERS, SAFETY SWITCHES, MOTOR STARTERS, OVERCURRENT PROTECTION DEVICES, TRANSFORMERS, CONDUCTORS OVER 600 VOLTS AND ALL SPECIAL SYSTEMS SUCH AS FIRE ALARM, LIGHTING CONTROLS, SECURITY SYSTEMS, SOUND SYSTEMS ETC.
- 22. VERIFY EXACT LOCATIONS OF ALL NEW AND EXISTING UNDERGROUND SITE UTILITIES, PIPING AND RACEWAY SYSTEMS PRIOR TO TRENCHING. PROVIDE NECESSARY TRENCHING, BACKFILL EXCAVATION, SUPPORTS, SERVICE FEEDERS, (CONDUIT AND/OR WIRE), PULL BOXES, TRANSFORMER PADS. SAW CUTTING AND PATCHING, CONCRETE PAVING ETC, REQUIRED. BACKFILL TRENCHES TO 90% COMPACTION AND PATCHING TO MATCH EXISTING. CONTRACTOR SHALL OBTAIN AND VERIFY EXACT UTILITY COMPANY DRAWINGS AND REQUIREMENTS FOR ALL SITE UTILITIES. ELECTRICAL CONTRACTOR SHALL ALSO COORDINATE ELECTRICAL RELATED UTILITIES WITH THE CIVIL AND MECHANICAL ENGINEERS AND CONTRACTORS.
- 23. PULLBOXES, CABINETS, ETC. MOUNTED ON THE EXTERIOR OF THE BUILDING AT GRADE LEVEL, SHALL BE WEATHERPROOF TYPE WITH HINGED GASKETED LOCKABLE COVERS SECURED WITH TAMPERPROOF SCREWS.
- 24. COMPLY WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE, LOCAL ORDINANCES, AND UTAH STATE DFCM.
- 25. MINIMUM CONDUIT SIZE SHALL BE 3/4".

STAN	IDARD MOUNTING HEIGHT UNLESS OTHERWISE NOTED ON PL			
SYMBOL	DESCRIPTION	MOUNTING HEIGHT	NOTE	:S
_	ONE CIRCUIT, TWO WIRE HOME RUN TO PANEL			
#	2 CIRCUIT, 3 WIRE, COMMON NEUTRAL HOME RUN			
<u> </u>	3 CIRCUIT, 4 WIRE, COMMON NEUTRAL HOME RUN			
	CONDUIT RUN CONCEALED IN WALL OR CEILING			
	CONDUIT UP			
	CONDUIT DOWN	0.45		
	CONDUIT STUB LOCATION	CAP CONDUIT		
<u> </u>	CEILING LIGHT FIXTURE	CEILING		
Ю	WALL LIGHT FIXTURE	AS NOTED		
Θ_{N}	6 LIGHT NURSE CALL TO MATCH EXISTING			
— Ю _{NL}	NIGHT LIGHT WITH GRILL		MATCH EXIST	ING
	RECESSED DOWNLIGHT FIXTURE	CEILING		
O	FLUORESCENT LIGHT FIXTURE	AS NOTED		
EM	FLUORESCENT EGRESS LIGHT FIXTURE	AS NOTED	UNSWITCHED	
\otimes	CEILING MOUNTED EXIT LIGHT	CEILING		
<u> </u>	WALL MOUNTED EXIT LIGHT	AS NOTED		
\$	SINGLE POLE SWITCH	+4'-0"		
\$3	THREE-WAY SWITCH	+4'-0"		
\$4	FOUR-WAY SWITCH	+4'-0"		
\$ TR	TIME CLOCK WITH CONTACTOR, PHOTO CELL ON ROOF	+4-0		
S _M	3 POSITION MOMENTARY CONTACT TOP/BOTTOM - ON/OFF			
S _D	DIMMER SWITCH	. 40"	001.00 TO 14	A TOLL
<u></u>	DUPLEX RECEPTACLE - HOSPITAL GRADE	+16"	COLOR TO M	
<u>⊕</u> E	FOURPLEX RECEPTACLE - HOSPITAL GRADE - RED DEVICE		EMERGENCY	POWER
— ⊕ _{EWC}	ELECTRIC WATER COOLER RECEPTACLE WEATHERPROOF RECEPTACLE		SEE DETAIL	
— → wp	ISOLATED GROUND RECEPTACLE	+24"		
⊕ _{IG}		+16"		
	GROUND FAULT INTERRUPTER DUPLEX RECEPTACLE FOURPLEX RECEPTACLE — HOSPITAL GRADE	+16"	COLOR TO M.	A TOU
<u> </u>	SPECIAL PURPOSE OUTLET	+16" OR	COLOR TO M.	АТСП
$\overline{}$	TELEPHONE OUTLET-RUN CAT 5E CABLE 4PR IN 3/4"C TO TEL	AS NOTED	<u> </u>	+16
$\overline{}$	TELEPHONE/DATA OUTLET-RUN CAT 5E CABLE 4PR IN 3/4"C			+16
<u> </u>	JUNCTION BOX ('F' IN FLOOR)	AS NOTED	BOARD	1 10
	MOTOR OUTLET	TO SUIT		
\$ ^T	MANUAL STARTER THERMAL OVERLOAD SWITCH W/PILOT LIGHT	EQUIP. +4'-0"		
	PANEL BOARD	TOP AT +6'-0"		
	TELEPHONE TERMINAL BOARD	+6'-0"		
F	FIRE ALARM MANUAL STATION	+4'-0"		
<u>.</u>	FIRE ALARM SIGNAL SPEAKER/STROBE	+6'-8"		
	SMOKE DETECTOR	CEILING		
<u> </u>	DUCT SMOKE DETECTOR		MTD. IN DUC	T
<u> </u>	HEAT DETECTOR	CEILING		
842	ARCHITECTURAL ROOM NUMBER			
(A)	LIGHT FIXTURE (LETTER DESIGNATES TYPE)			
EQ 34	EQUIPMENT NUMBER			
	FUSED DISCONNECT SWITCH			
	DISCONNECT SWITCH			
<u>_</u> _	COMBINATION MOTOR STARTER WITH FUSED DISCONNECT			
	TELEVISION JACK			
	CARD READER (ACCESS CONTROL)			
	 CAMERA CCTV-RUN TWO 24V POWER CABLES, COMM CABLE CA	<u> </u> Γ_5e,		
	AND RG6 TW-PR UTP CABLE IN 1"C TO CCTV EQUIPMENT CABIN	ET IN ELEC R	M	
FS	FLOW SWITCH			
TS	TAMPER SWITCH	DIN SIT	EE 04515 151	
$\odot V$	FLOOR OUTLET WITH DUPLEX RECEPTACLE AND TEL/DATA JACK IN 3/4"C TO TEL EQUIP BOARD.	- RUN CAT	DE CABLE 4PI	≺

	LIGHTING FIXTURE SCHEDULE											
	FIXTURE						FIX					
	TYPE	MANUFACTURE	CATALOG NUMBER	DESCRIPTION	LAMPS	QTY	WATTS	MTG	VOLTS			
*	T1	COLUMBIA	ST824-332G-FSA12125 EBLH120	2'x4' LAY—IN FLOURESCENT 0.125" ACRLIC LENS	F32, T8 TL835	3	_	REC.	120			
	T2	LITHONIA	TWP 175MH 120 PE	WALL PACK- WET LOCATION	175 MH	1	_	WALL	120			
	Т3	BEGA	2542 MH	SHALLOW SURFACE — DAMP LOCATION	70 MH	1	_	SURF.	VERIFY			
	Х	LITHONIA	LESIGELN	EXIT LIGHT	_	_	-	SURF.	120			

^{*} PROVIDE EMERGENCY BATTERY UNIT FOR EACH EGRESS FIXTURE. USE SPECIFIED FIXTURES OR APPROVED EQUAL.

INDEX OF ELECTRICAL DRAWINGS

- E1.1 SYMBOLS, SCHEDULES AND NOTES
- E2.1 LIGHTING AND POWER PLAN
- E3.1 POWER PLAN

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ARD ARMORY FACILITY

ARCH. PROJECT NO:06-55 DATE:10/20/06 DRAWN BY:JSI HECKED BY: DESIGNED BY:

IATION/ TO

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SHEET TITLE **E1.1**

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SEE SHEET #AE-1105 REFLESCTED CEILING PLAN FOR FIXTURE LAYOUT W/ MECHANICAL EQUIPMENT.

